- How to use FOS-V3
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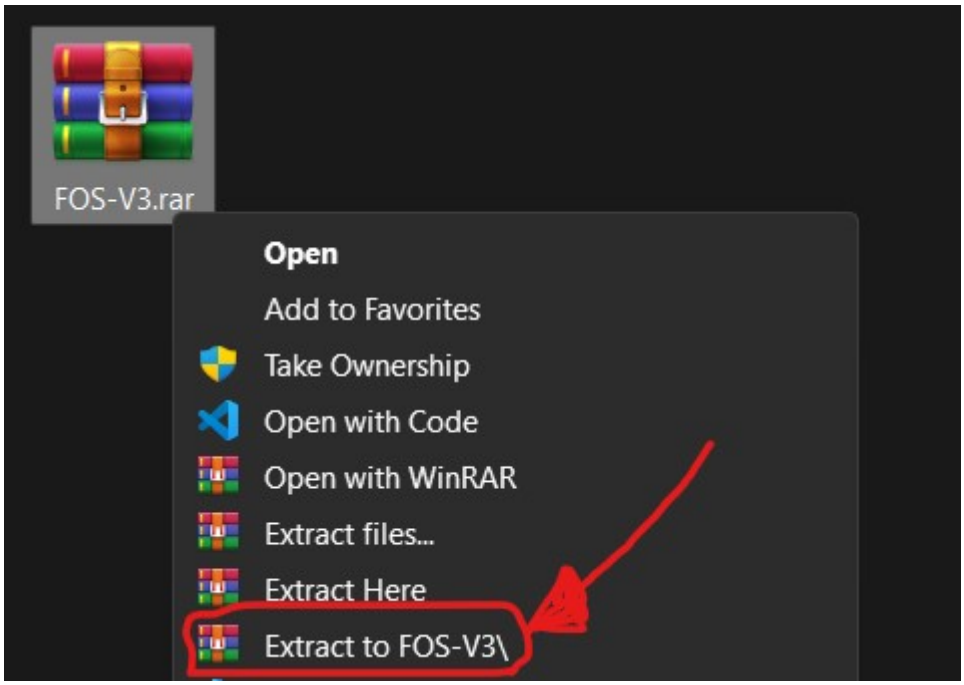
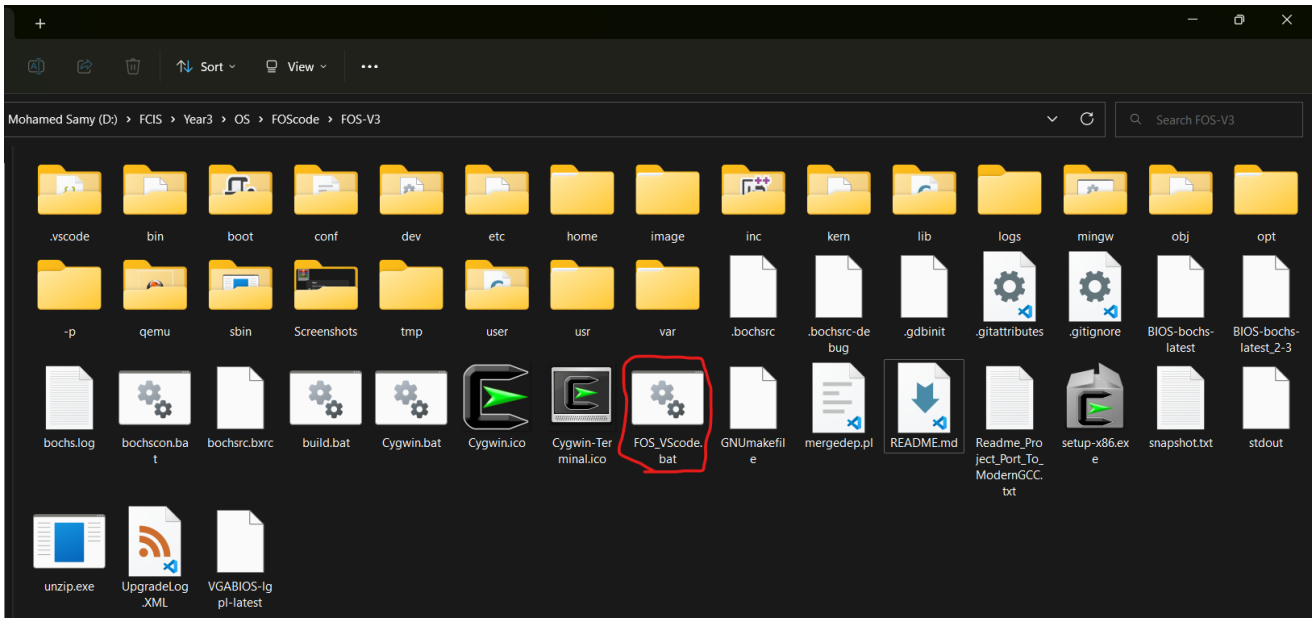
How to use FOS-V3

First time run

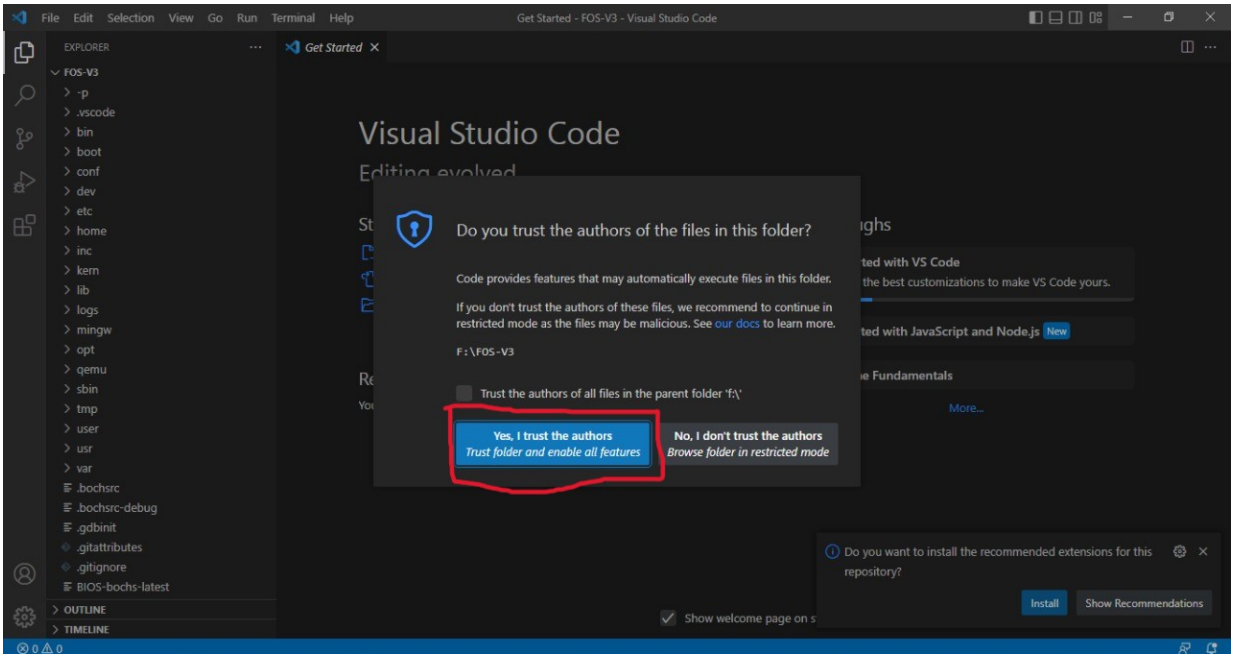
- Download the `FOS-V3` rar file from Here
- Extract `FOS-V3` in a new folder:



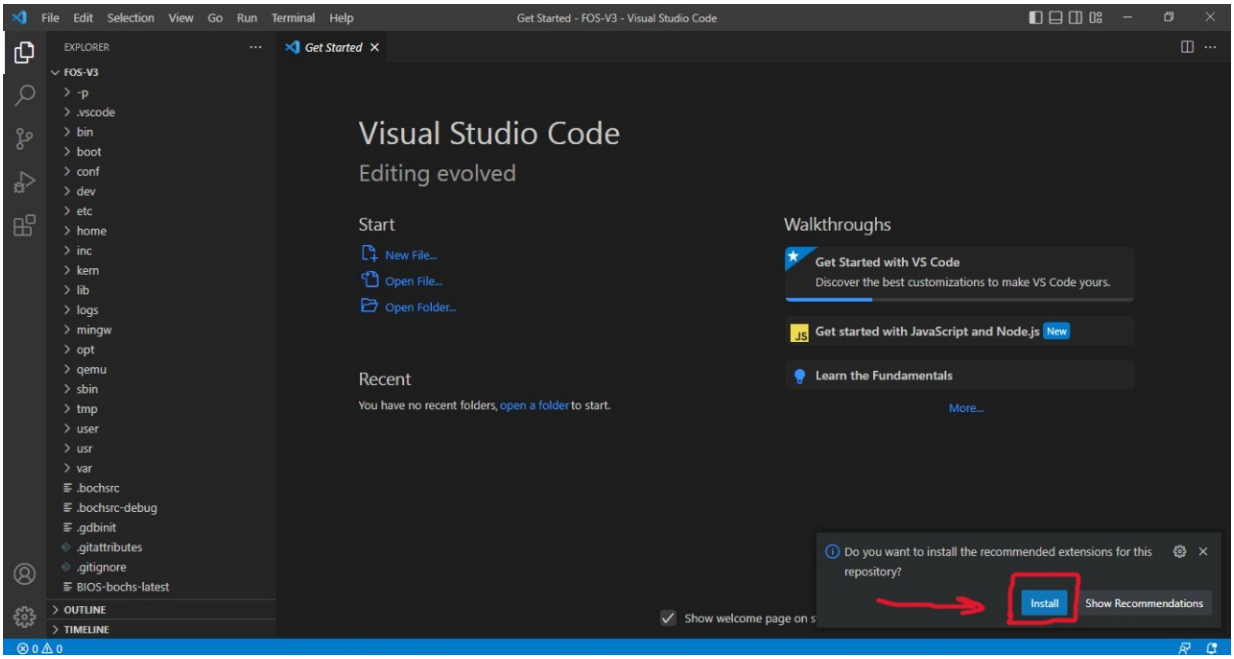
- Run `FOS_VScode.bat`



- VS Code should now open in the project folder
  - Trust project workspace

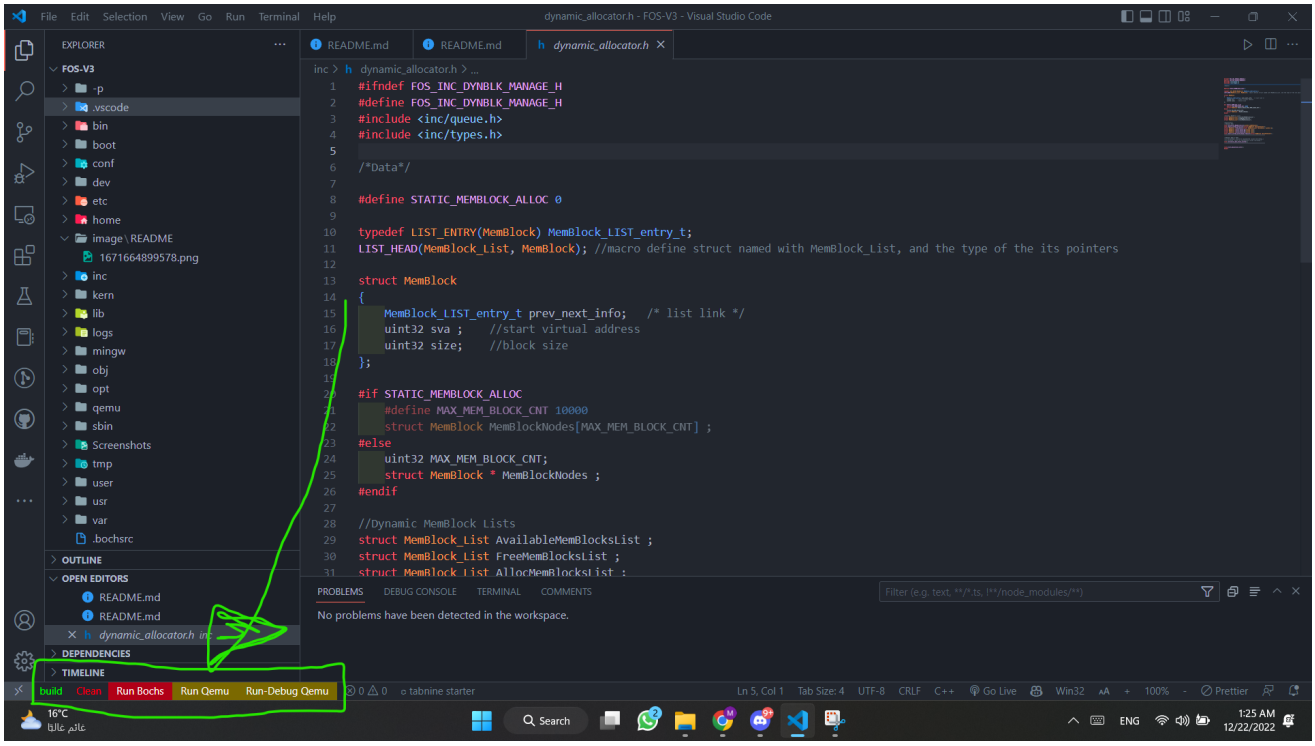


  - You will be automatically notified to download required extensions, Click Yes



Build and run FOS

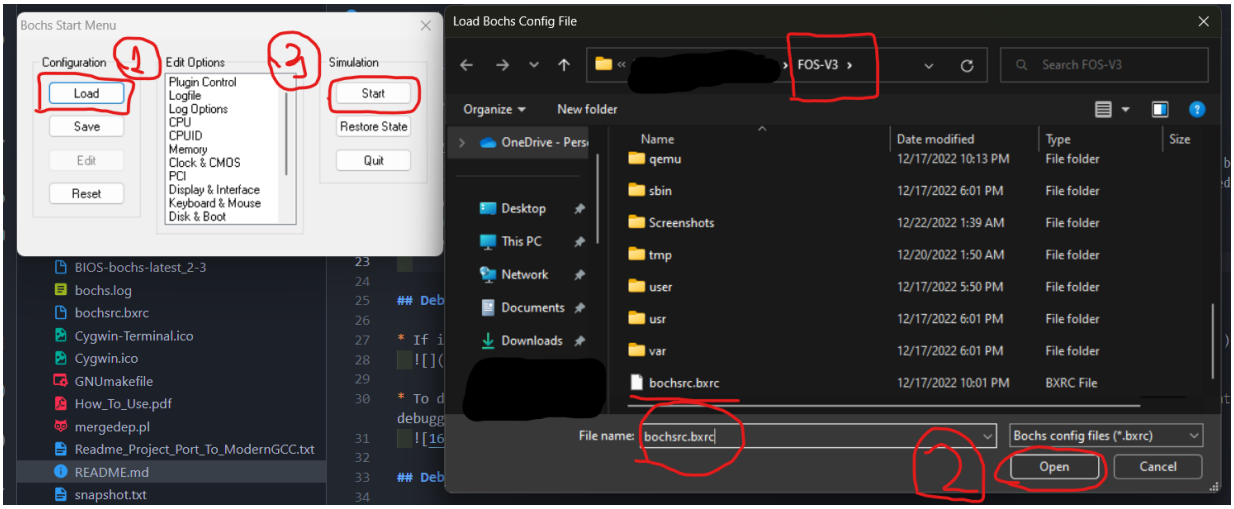
- After extenstions install four buttons will appear to build, clean and run FOS on both emulators



- `Build` just builds the FOS image, but `Run` will also build FOS again every time (This behavior will be modified later), also note that build can fail on the first time after installation or after `Clean` as it creates the required directories (this will also be improved later)

- `Run Bochs` and `Run Qemu` Will run FOS in eash Emulator respectively

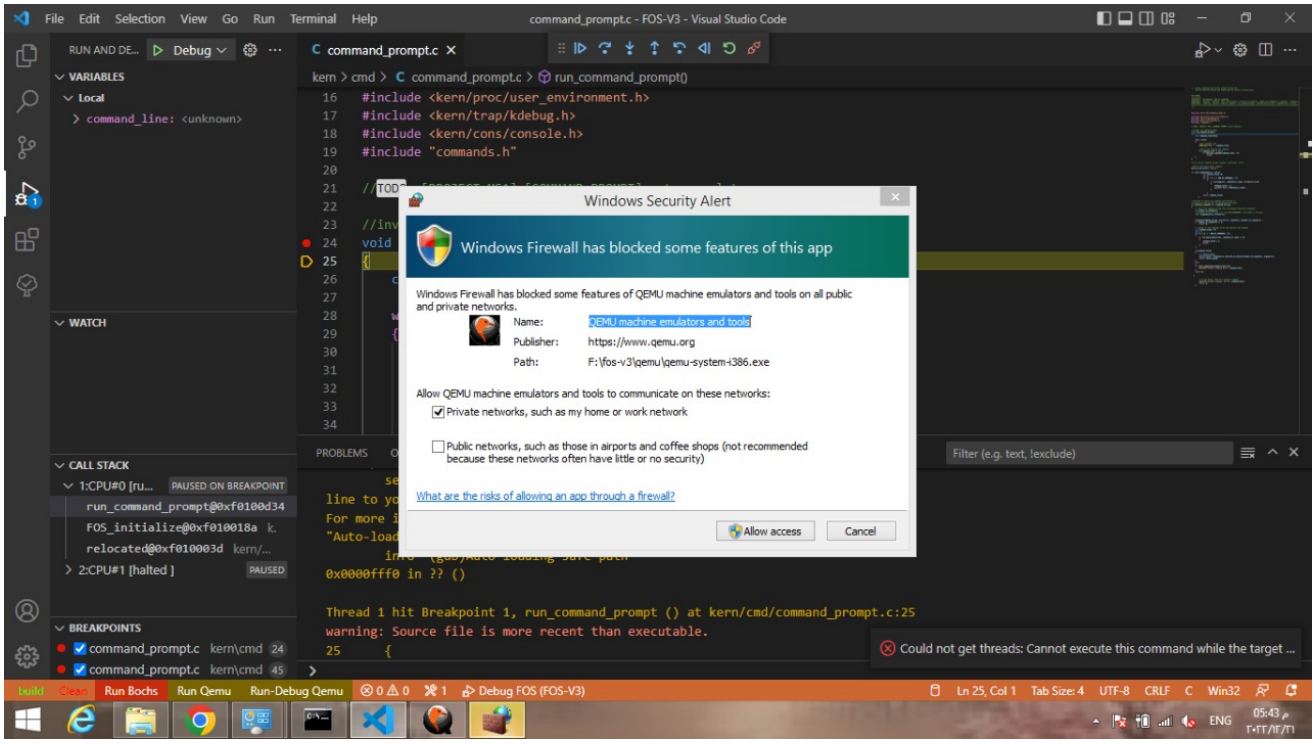
    - Note: when running on bochs you may need to specify the configuration file like this:



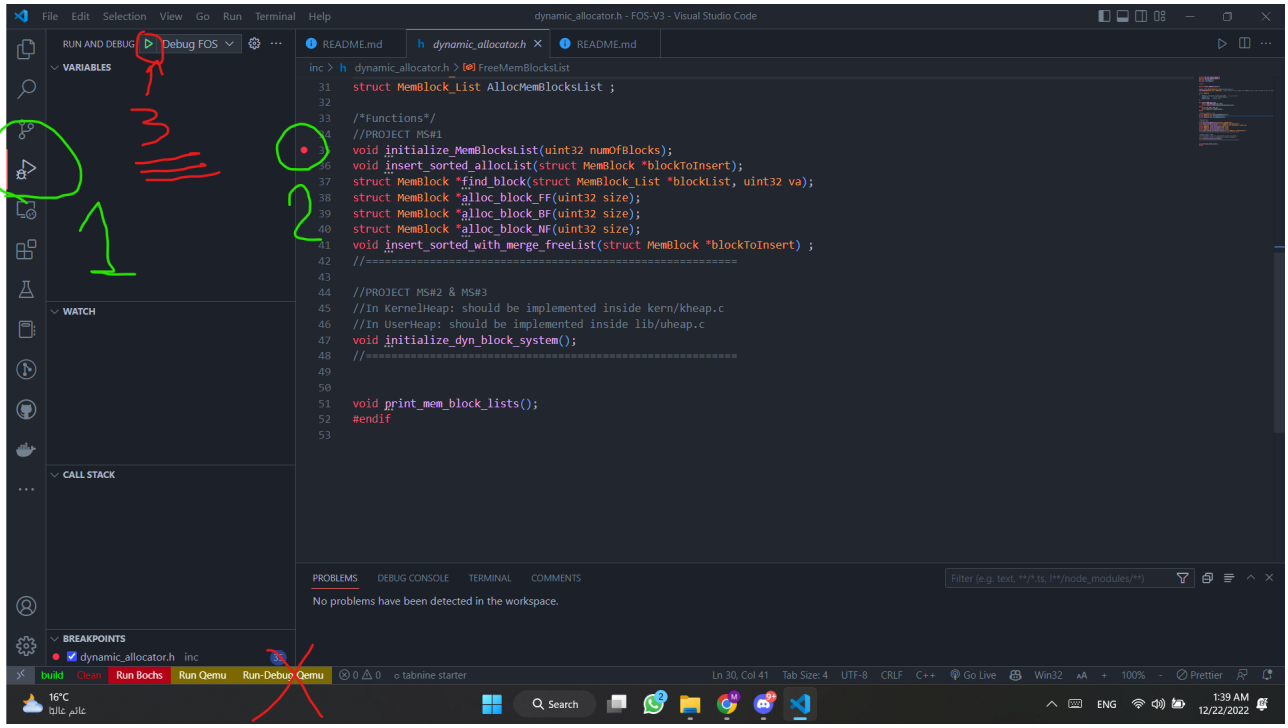
    - This behavior was intended during testing and will be removed later

Debugging kernel

- If it's the first time to run the debugger, you may see somthing like this (Just click `Allow access`):

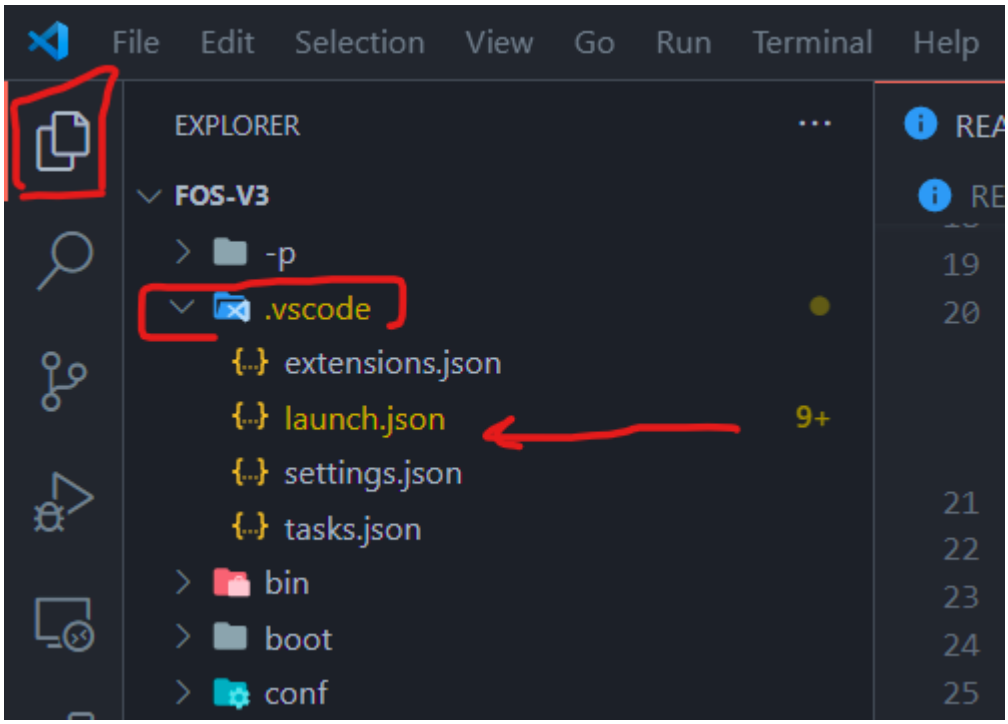


- To debug **Use The Green Button** on Debug page and make sure that you put all the required breakpoints before you start debugging.

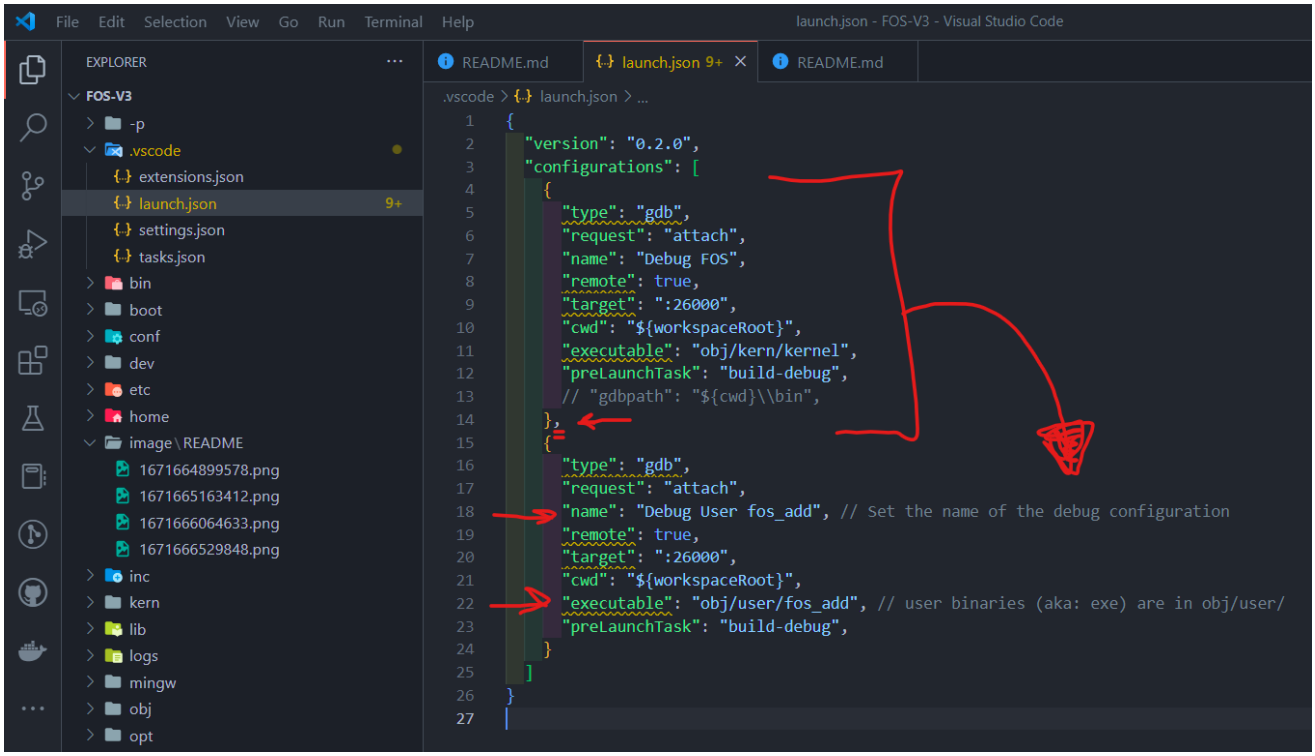


Debugging user executables

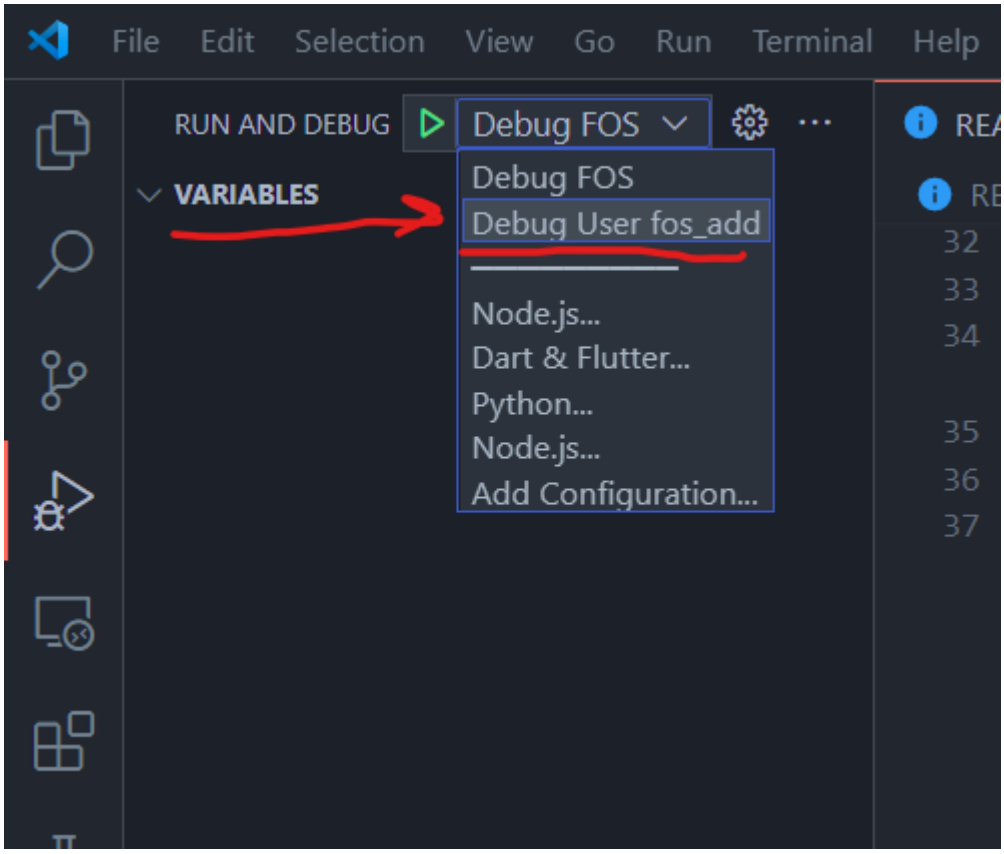
- The default configuration debugs the Kernel binary, to debug a user program go to `.vscode\launch.json`



- Create a copy of the current configuration and put it into the configurations array (separated by commas), and set the `name` of your new configuration the change the `executable` path to obj/user/"The name of user program you want to debug", Note: the name of user program binary is usually the same name of the code file but without extension Ex: `fos_add.c -> fos_add`



- Now add breakpoints to the user program code and select its debug configuration you just created from the list



- Click the **Green Button** and start debugging as usual